

## **REMARKS**

Applicant would like to thank the Examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office action, and amended as necessary to more clearly and particularly describe the subject matter which applicant regards as the invention.

A supplemental information disclosure statement is submitted with this amendment. Consideration of the newly cited references is requested.

Claims 1, 3-4, and 7-15 remain in the application. Claim 1 has been amended herein to overcome an objection raised by the Examiner. Claim 11 has been amended to provide proper antecedent basis.

Additionally, claim 10 has been amended for clarification purposes only. Specifically, the phrase regarding the provision of open socket pieces was changed to state "for the purpose of preventing *sedimentation* from the filter liquid". The socket pieces do not serve to scour the filter plates, but rather assist in flushing out sediments that may accumulate inside the gas installation if/when it is temporarily turned off and fills with filtrate liquid. When the gas flow is turned back on, the filtrate liquid is displaced again and, assisted by gravity, sediment will flush out through the open socket pieces.

Claims 1, 3-4, 7-12 and 14-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Canadian Patent 2421115A1 to Grigo et al. (hereinafter Grigo) in view of French Patent 2,799,391 to Degremont (hereinafter Degremont) and further in view of U.S. Patent 3,997,447 to Breton et al. (hereinafter Breton). For the following reasons, the Examiner's rejection is traversed.

Grigo is directed to a filter device rotationally arranged in a container and surrounded by liquid to be filtered. Individual filter elements consist of filter plates which are used to divert the filtrate and which are provided with filters on both sides.

A pump blade wheel is situated within a hollow area and creates a flow in the unclarified liquid between the spaced apart filter elements so as to avoid adhesion of solids to the filter elements.

Degremont is directed to an assembly for separating solids from a liquid using filter membranes that are fitted so that their surfaces are each on flat disks pitched at an angle. A gas delivery system is located under the disks to provide a gas scouring action on the filter membranes.

Breton is directed to a fluid processing apparatus that includes a filter element that rotates with the fluid being filtered. At predetermined intervals, the fluid medium flow through the filter is reversed or backpulsed.

Regarding claims 1, 3-4, 7-12 and 14-15, Applicant believes that there is not sufficient motivation for one of ordinary skill in the art to combine the Grigo and Degremont references. The Examiner justifies the combination by referring to the Abstract of Degremont where it states that the Degremont apparatus "give a gas scouring action on the filter membranes". Applicant disagrees that sufficient motivation is provided. Degremont also states at page 2, lines 10-14 that to provide an improved sweeping action of air bubbles across the filter material surface, the plates supporting the filter material are angled. This conclusion is entirely understandable. However, installation of the device of Degremont into the apparatus of Grigo is not suggested because the plates of Grigo are not angled. As a result, the scouring action of Degremont would not be achieved within the

proposed combination. Without achieving this action, there is no motivation to make the combination.

Additionally, Applicant believes that there is not sufficient motivation to add the gas delivery system of Degremont to Grigo and also place it within the space at the center of the Grigo apparatus. The Examiner states that this is an obvious simple part relocation. Applicant disagrees and believes such a change is counterintuitive to one of ordinary skill in the art. As the gas delivery system is placed in Degremont, all of the plates are scathed because the bubbling device is beneath the plates and there is filter media on only one side of the plate. Before the combination, in Grigo, all of the plates are also scoured because the paddles move water in all directions and clean all plates adjacent to the paddles. To one of ordinary skill in the art, movement of the Degremont gas delivery system to the open position of Grigo is counterintuitive because then only one half of the plates (those located on the top side) would be scoured clean at one time.

Additionally, regarding claim 7, even if the references were combined in the manner suggested by the Examiner, the claimed invention would not result. Grigo discloses a disk carrying the filter modules being firmly connected to the driveshaft, that is in turn supported by a bearing. If Breton teaches substitution of a hollow shaft for the driveshaft of Grigo, the resulting device still has the filter modules secured to the shaft. In contrast, claim 7 requires that the filter elements are *supported by bearings on the hollow shaft*. This configuration is not taught or suggested by the proposed combination.

Additionally regarding claim 10, even if the references were combined in the manner suggested by the Examiner, the claimed invention would not result. None of

the references teach the socket claimed in claim 10. Rather, Degremont teaches a gas delivery system for scouring. However, as stated earlier in the remarks, the socket is not for scouring purposes but instead to allow for clearing any sediment that might build up in the hollow shaft. Thus, in addition to a socket of this type not being taught by the references, there is no suggestion of sedimentation within a hollow pipe being a problem in any of the references and thus there is no motivation for combining references to overcome such a problem.

Additionally, regarding claim 11, even if the claims were combined in the manner proposed by the Examiner, the claimed invention would not result. The proposed combination does not teach or suggest "semicircular spoilers", nor spoilers that are attached "in the upper zone of apertures", as required. The Examiner states that the plates of Degremont teach the claimed spoiler, but these plates are not semicircular. Further, these plates, in Degremont, are constantly rotating, as opposed to being fixed, and thus cannot be defined as being in the upper zone of an aperture. Further, there is no motivation to combine Grigo and Degremont so as to have a device with spoilers. The teachings of Degremont would, rather, suggest the tilting of plates in Grigo to achieve a spoiler function. Finally, if the combination were made, spoilers that increase the effect of the flow of compressed air on the *filter liquid* would not be taught, but instead spoilers (as stated in Degremont) that increase the scouring effect on the surface of a filter element on a plate.

For at least the reasons stated above reconsideration and withdrawal of the rejection of claims 1, 3-4, 7-12 and 14-15 under §103(a) is respectfully requested.

In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is

determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 18-0160, our Order No. FRG-16153.

Respectfully submitted,

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